MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2015/2016

BKE2014 – KNOWLEDGE ECONOMY

(All sections / Groups)

1 JUNE 2016
2.30 p.m. - 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **THREE (3)** printed pages with:
   Section A: Three (3) structured questions (75 marks)
   Section B: One (1) case study (25 marks)
2. Marks are shown at the end of each question.
3. Write all your answers in the answer booklet provided.
4. Answer all questions.

SECTION A: THREE (3) STRUCTURED QUESTIONS (75 MARKS)

Answer all questions.

Question One (25 marks)

(a) Describe how knowledge is used in the industrial, information and knowledge economies.

(12 marks)

(b) Compare the Production-based (P-based) Economy with the Knowledge Economy (K-Economy).

(8 marks)

(c) Describe how Malaysia is transitioning from a production-based to a knowledge-based economy.

(5 marks)

Question Two (25 marks)

(a) Describe the Knowledge-Based Economy Index (KDI) and the four (4) items included in the measurement.

(18 marks)

(b) How are knowledge (k)-industries categorized?

(7 marks)

Question Three (25 marks)

(a) There are cyber security threats that do not form part of the formally defined scope of information security. Describe them.

(8 marks)

(b) Discuss in economic terms how intellectual property rights impact on non-rival goods such as knowledge goods.

(17 marks)

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SECTION B: CASE STUDY (25 MARKS)

Read the following article and answer all the questions that follow.

'Lack of interest a bleak sign for Malaysia'

KUALA LUMPUR: A government study has found that Malaysian students are losing interest in science, with only 21% of those in upper secondary choosing to study it last year.

In a presentation, the Academy of Sciences Malaysia warned that the country faced a bleak future due to this erosion in scientific interest.

"This is worrying ... the students are not interested in science.

"We need these people because many of our scientists are retired," said academy council member Prof Datuk Dr Halimaton Hamdan in a speech.

She was presenting a summary of a report called "Science Outlook – Action Towards Vision", which looked at the problems Malaysia faced with science.

When asked about the 21% figure, an academy spokesman said it was based on the 2014 PT3 examinations for Form 3 students.

She said the Government came up with a policy in 1967 to get 60% of students studying science, adding that this was never reached.

Brain drain was also an issue, she added, with 20% of all tertiary students eventually migrating overseas.

This led to Malaysia having only 85,000 people working in the science field today, Dr Halimaton said, adding that the country needed at least 500,000 degree holders in this workforce if it wanted to be a developed country by 2020.

"That (500,000) would account for 3% of the total workforce ... advanced countries have 30% of their workforce in science and technology," she said.

Dr Halimaton noted that this problem was due to ineffective teaching methods, ad hoc policy changes and low awareness in the demand for specialised talent.

The academy also found that Malaysia was not spending enough on research and development, and that it only spent about 1.13% of its gross domestic product today on this.

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In comparison, advanced countries spent more than 3% of their GDP on R&D, Dr Halimaton said, adding that these countries also had stronger governance structures in science and technology.

She also said the implementation of national science and technology policies was not coordinated and that 30.6% of industries here did not know that they existed.

The Star Malaysia. (2015, September 23). Lack of interest a bleak sign for Malaysia. ***The Star.*** **Malaysia. Retrieved April 11, 2016, from http://www.thestar.com.my/news/nation/2015/09/23/lack-of-interest-a-bleak-sign-for-malaysia/**

Answer all questions.

(a) Describe the shortage of scientists in Malaysia, based on the article above.

(8 marks)

(b) Why are there a low number of students studying science in Malaysia, according to Prof. Datuk Dr. Halimaton Hamdan?

(9 marks)

(c) The knowledge economy is characterised by the constant demand for knowledge workers. Elaborate.

(8 marks)

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